The Tribune Radio—News of the Air Routes—By Jack Binns

Beverage Wire Removes the Static Pest

Aerial Equal in Length to One Full Wave Length Successfully Used to Overcome Interference

Is Directional in Effect

MadeAmateurTrans-Atlantic Test Successful on Less Than One Horsepower

A very remarkable aerial has been devised which has greatly increased the efficiency of trans-Atlantic wireless telegraphy. It is known as the Beverage antenna, and its use has mate fact so much so that engineers are ex perimenting with it for use in the re ception of broadcast radiophone en-

The most notable achievement of the Beverage antenna was in December of last year, when Paul Godley, the famous American amateur, used it in Scotland on the occasion of the amateur trans-Atlantic radio tests. With this type of serial Godley succeeded in receiving no fewer than twenty-seven different American amateur stations, every one of which was using less than one kilowatt of power in their transmitters. In his report of the test Godley wrote:

"On Wednesday the 7th the 1 300 fool stretch of line was completed, the wire being supported by 2x4 inch posts twelve feet high and laid out to point directly toward Chicago. The wire was grouffded at the distant end through a ohms) and at the home end through a

the wind as the static, we can get an idea how it works. Now, suppose the wind is blowing across the lake from east to west. At the eastern end there will be little or no ripples, but as we get to the western end the ripples will gradually increase in size to full ways. If the shore at the western waves. If the shore at the western end is a gentle slope of sandy graves the waves will be dissipated and will

not be reflected.
"If, on the other hand, the shore of "If, on the other hand, the shore of the lake is precipitous and rocky the waves will be reflected and will phonograph music was sent through disturb the eastern end of the lake. the nir to people within a 100-mile radio convention New York State. Now the Beverage antenna, having a ron-inductive resistance at its non-the college. For the next two months that each the station, conducted entirely by

the United States to regularly broadreflect them.

Analogy Explains System

"Carrying the analogy further, if we place a stationary paddle wheel at the western end of the lake, which is revolving uniformly and producing waves of a uniform character, these waves will travel steadily forward toward the enstern end and will not be interrupted by or stopped by the wind. This paddle wheel corresponds with the transmitting station and the transmitting station and the transmitting station and the first program in 1920 the students

the United States to regularly broadcarb musical programs. Seon, after the first commercial broadcarb musical programs. Seon, after the start of the first commercial broadcarb musical programs. Seon, after the start of the first commercial broadcarb musical programs. Seon, after the start of the first commercial broadcarb musical programs. Seon, after the start of the first commercial broadcarb musical programs. Seon, after the start of the first commercial broadcarb musical programs. Seon, after the start of the first commercial broadcarb musical programs. Seon, after the start of the first commercial broadcarb musical programs. Seon, after the start of the first commercial broadcarb musical programs. Seon, after the start of the first commercial broadcarb musical programs. Seon, after the start of the first commercial broadcarb musical programs. Seon, after the start of the first commercial broadcarb musical programs. Seon, after the start of the first commercial broaddeath musical program is closed operdeath musical program is closed operde

Making Moves in Ancient Game Via Ether



ine priotographer said, "Photo shows Miss Rosalind Kendall, of New York, calling her move, while her friend in Chicago sends back by radiophone." In the excitement of the moment she forgot to put the transmitting tubes in their sockets

Britain to Let Down Barriers **Against Home Radiophone Sets**

Marconi Head Declares England Will Give America able, but in practice at the present time Good Race for Supremacy When She Starts; Claims Superiority in Tube Sets

By Warre B. Wells

LONDON, April 21.—England, which to-day can claim no more than a few thousand radio fans against the million thousand radio fans against the million use of wireless telephony comes," he

proved by comparison with a small vertical wire supported by a nearby tree. Statie-to signal ratio in all cases was decidedly better on the Beverage wire. Of course, it will be seen at the outset that such an aerial cannot be used by every radio fan, because of its great length, and the fact that only a few persons, comparatively speaking, can crect such a long wire.

Aerial Nine Miles Long.

Perhaps the best way to explain the operation of this type of antenna will be by describing its use in connection with the gigantic station at Radio Central, Riverhead, L. I. This station receives from the long distance European stations which are using wavelengths ranging around 15,000 meters in length, or, in other words, each electro-magnetic wave sent out from these stations is approximately nine miles in length.

Now in order to fulfill all of the re-

Transmitting Apparatus of the Student Body Now Uses

One Horsepower

By Lewis B. Sebring Jr. 23

Chair College

Radio broadcasting was introduced to radio gamateurs within a hundred of radio gamateurs within a hundred on the night of October 14, 1820, when a phonograph music was sent through the night of October 14, 1820, when the night of October 18, Now the Beverage antenna, having a radius of Schenectady, N Y., home of the college. For the next two months receiving end, corresponds to a sandy flower, because it absorbs the static and interfering waves and does not reflect them.

Analogy Explains System

"Carrying the analogy further, if we are sadded to their weekly concerts"

"Carrying the analogy further, if we are sadded to their weekly concerts are sent and server a

Reflected Wave May Reduce Interference

Possibility of Developing Earlier Experiments Is Suggested as Means to Eliminate Congestion

Would Need Less Power

Such System Would Increase Secrecy of Public Radio Telephone Conversation

What are we going to do when every occupied? That is the question which is causing the United States quite a lot of concern in the endeaver to bring order out of the present chaos which. fact the problem is universal, and it will undoubtedly be the chief topic to be discussed at the next meeting of the International Radio Convention.

To the novice perhaps the situation does not appear to be so difficult, but it must be realized that the number at our disposal are not actually available in practice, due to the fact that tuning is not 100 per cent efficient.

Theoretically there should be 300. there are considerably less than 20,000. but even these are badly congested, and with the advent of broadcast radio-phone entertainment the conges-America the boom is rather premature, tion is becoming worse daily,

Engineers Will Solve Problem

The problem is not merely one for monimistrict resistance (20) to 400 observed and the name and the name of the profits of the pro the legislators. Their efforts can only end in regulation, which of course will

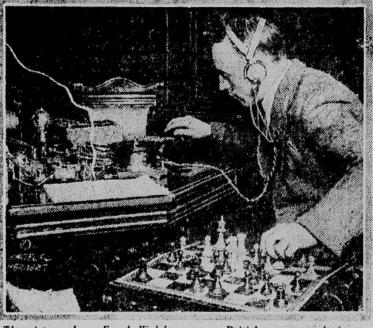
Reverage antenna very effective in eliminating this local static, as the signals are coming from the opposite direction to the static.

In order to illustrate the operation of the Beverage antenna G. H. Clarke, an engineer of the Radio Corporation, has drawn the following analogy for our rhaders:

"If we look upon the Beverage antenna as a large lake," he says, "and the will as the static, we can get an idea how it works. Now, suppose the

president, Mrs. Eleanor G. Regan; sec-

They Call It "Radio Flu" in England



The picture shores Frank Walsh, a young British amateur, playing a game of chess by radio, in his home at Brighton, England. He has just scirclessed a more to his brother in Paris. Radio is being rapidly popularized in Europe

of wave-lengths which are theoretically at our disposal are not actually available at our disposal are not actually available. In the Ether About New York

An Amateur Describes Historic Occasion When the Nightly Jargon of Amateur Conversation Was Stilled in the Face of Disaster

By Charles William Taussig
Ten or fifteen years ago were the pioneering days of the radio amateurs ardent amateur, was the self-appointed

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Ship Operator in Chile Hears WJZ 4,000 Miles

While lying in the harbor of Manufacturer States Iquique, Chile, on the west coast of South America, the operator of the steamship Santa Luisa of the Grace by The Tribune Radio from H. B. John. Line clearly heard the entire concert son, general manager of the Acrex of WJZ. The distance separating New- Corporation: ark station from the steamship in an "Please be advised that the follow

entire program, but a large number of visitors from the nitrate works ashore 923,263, 1,104,065, 1,104,073, 1,118,238 were on the ship at the time and they 877,451, 904,222, 1.213,250, 1,127,92; crowded into the wireless cabin to listen to the music. In a statement re- to the Radio Corporation by the Wire. garding the incident a representative less Specialty Apparatus Compact, of of the line, after reading the operator's Boston, the latter company reserves and captain's reports, said:

tened with wonder and astonishment lie Library, Forty-second Street, and to the various melodies reproduced by verify same.
the operator's instruments, which were "In order that you may licard quite distinctly, even to the vour readers regarding patents on crue extent in some instances of being able give some space to the fact that crue comprising the orchestra. The visitors

left the steamer greatly impressed with this latest wonder of modern science, the employment of which was only made posible by the modern wireless equipment of the steamer."

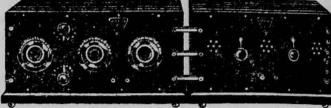
Patents Cover Crystal Sets The following letter was re-

ing patents cover the use of the crys Not only did the operator hear the tal detector, the last two number given being circuit

"The visitors, comfortably situated patents. If you so desire you may look in the four corners of the room, list these patents up at the New York Pub.

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